SDI should not be designed

To the editor:

Computer magazine is to be commended for publishing one of the more fair-minded articles concerning SDI software ("Can software for the Strategic Defense Initiative ever be error-free?", Nov. 1986). However, I still came away feeling more strongly than ever that such a system should not be designed. Let me explain why.

The main conclusion of the article can be stated as follows: If a large number of highly talented professionals spend tens of thousands of hours (or more) designing a set of programs that may be as long as several million lines, then it is highly likely that the number of errors present in these programs can be expected to decrease over time. The more time spent analyzing and testing the code, the smaller the error count becomes.

A major danger is that such an effort ever take place, we may eventually become convinced that we can and indeed should rely on such a system as the Strategic Defense Initiative is intended to promote. We may believe that we reduced an estimated error count to a value that gives us the confidence (i.e., read arrogance) that through an exhaustive scientific effort, we have truly rendered nuclear weapons "impotent and obsolete." Of course the Soviets are already concerned that it is their weapons that may be so rendered. They are worried that US missiles and other weapons will then be available for attack or intimidation. That such an SDI system could also be used as an offensive weapon is not publicly discussed.

The existence of nuclear weapons on earth is not a problem with solely a technological solution. There is no instructor's manual containing the answer to the question, "How can the 100+ nations of the earth learn to coexist without the larger ones threatening to exterminate one another and the smaller ones striving to attain such a capability?"

President Reagan and others are to be lauded for trying to find a way to rid the planet of the nuclear menace. But attempting this with a purely technological approach dramatically oversimplifies the nature of the problem. (It should be noted that the sanest technological decision the US could make at present would be to stop all nuclear weapons testing.

Not a single line of code need be written, much less tested, to do this.)

Rather than build SDI, we should be developing technologies that enhance the mutual security of all nations. Using an array of sophisticated satellites to monitor various troubled regions of the planet and making the gathered data widely available would be a start. In addition, we (and the Soviets) should be seriously developing renewable energy sources. Relying on fossil fuels is certain to lead to future wars as supplies become threatened. Finally, we should consider the suggestion of Carl Sagan (and others) to join with the Soviets in a spaceflight to Mars. Such a venture would surely be a wiser use of advanced computer technology than SDI.

There ARE valid reasons why the US and the USSR both feel the need to prepare to exterminate the other nation. But if we are ever to see a world without nuclear weapons, we shall have to begin to understand the historical, cultural, psychological, and spiritual elements that have led us to our present perilous state. Continuing to seek simplistic SDI-type solutions only perpetuates the arms race and further impoverishes both our nations.

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Response to "LisaLearning" article

To the editor:

While I do not question the integrity of the authors, I was surprised to discover, in the November issue, an article ("LisaLearning") authored by two IBM employees that reviewed the user interface of an Apple Computer, Inc., product.

I personally know several computer-literate individuals who love the Macintosh mouse and desktop user interface metaphor. Perhaps next month Steve Jobs should author a study of the IBM System 370 user interface.

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